



NEWSLETTER OF THE LONDON CHAPTER,
ONTARIO ARCHAEOLOGICAL SOCIETY

55 Centre St., London, Ontario N6J 1T4
(519) 675-7742; Fax: 675-7777



September 1998

98-5

Our speaker for the October 8 meeting is Dr. William Finlayson, Director General of the London Museum of Archaeology and Lawson Chair at the University of Western Ontario. Dr. Finlayson's talk is entitled *Iroquoian People of the Land of Rocks and Water* and covers his 25 years of research in the Crawford Lake area of Ontario.

Next Speaker Night will be the second Thursday in November. November's speaker is Dr. Maria Liston, skeletal biologist and archaeologist, of the Department of Anthropology and Classical Studies, University of Waterloo, Waterloo, Ontario. She will speak of her research on the skeletal remains of British and Colonial soldiers from Fort William Henry in upper New York State relating to the French-Indian Wars.

As always, our meeting will be held at 8 pm at the London Museum of Archaeology, 1600 Attawandaron Road, near the corner of Wonderland & Fanshawe Park Road, in the northwest part of the city.

Chapter Executive

President

Chris Ellis (858-9852)
515-1510 Richmond St. N N6G 4V2

Vice-President

Neal Ferris (432-2165)
451 Tecumseh St. E, N6C 1T6

Directors

Christine Nelson (438-4898)
22 Peter Street, N6B 3A2

Secretary

Karen Mattila (672-6523)
26 McMahan, N5Y3A2

Treasurer

Harri Mattila (672-6523)
26 McMahan, N5Y 3A2

Co-Editors

Peter Timmins (472-9189)
ptimmins@julian.uwo.ca
Christine Dodd (434-8853),
dpoulton@webgate.net

ANNUAL RATES

Individual..... \$18.00
Student..... \$15.00

Institutional..... \$21.00
Subscriber..... \$20.00

EXECUTIVE REPORT

The executive would like input from members on several issues. First, the London Museum of Archaeology, where we hold our meetings, has requested that the Chapter pay a fee of \$25 dollars per meeting. What do you think of this? Should we pay the fee or look for new digs (so to speak)? Any and all suggestions are most welcome.

Second, due to consistent low attendance, and in light of escalating costs, the executive would like to cancel the May Speaker Night and replace it with some sort of social gathering. Objections?

Third and most important, who would like the honour of hosting the **Christmas party**? As you are aware, the Christmas party replaces the December Speaker Night and also serves as elections night (although, with sufficient libations one can forget that tiresome detail). Seriously, it must be said that the current executive has been around the block several times (you get my drift) and are in desperate need of "new blood". I know your busy, but aren't we all! So get on the phone and volunteer! If not your services, then someone else's!!

SOCIAL REPORT

The 25th Annual Symposium of the Ontario Archaeological Society is fast approaching. This years' symposium will be held October 16-18 at the Woodland Cultural Centre in Brantford. The theme is *Archaeologists and First Nations: Bridges from the Past to a Better Tomorrow*. Secondary themes include *From Time Immemorial/The First 10,000 Years* and *The Last Few Centuries*. For details call Paul Lennox, London Chapter's own and program chair at (519) 438-9595. Hope to see you there!

EDITORS' REPORT

This month's article, is by Tim Abel currently at SUNY in Albany and Dr. David Stothers of the University of Toledo. The article provides a brief overview of the excavation of the Crown site, located on the east bank of the Sandusky River, Ohio. Their analysis suggests that the Crown site was a hamlet or a series of hamlets occupied during the late 13th and early 14th centuries.

The Crown Site (33SA40B): An Early Wolf Phase Hamlet in Northern Ohio

Tim J. Abel and David M. Stothers

LOCATIONS AND EXCAVATIONS

The Crown site (33SA40B) is located on a precipitous bluff-top, overlooking the Sandusky River from the east bank, approximately 1.6 km north of the city of Fremont, in northwestern Ohio (Figure 1). The site lies on a low knoll at the edge of the bluff that is composed of Rimer-Spinks fine silty sand, while the topography surrounding the site is generally flat to gently rolling lacustrine fossil lake bottom composed of Toledo-Danbury silty clays (ODNR 1981). The ground cover of the site at the time of the earliest land surveys was deciduous forest dominated by oak, hickory, beech, and elm, broken by open hazel thicket (GLS 1819-1830).

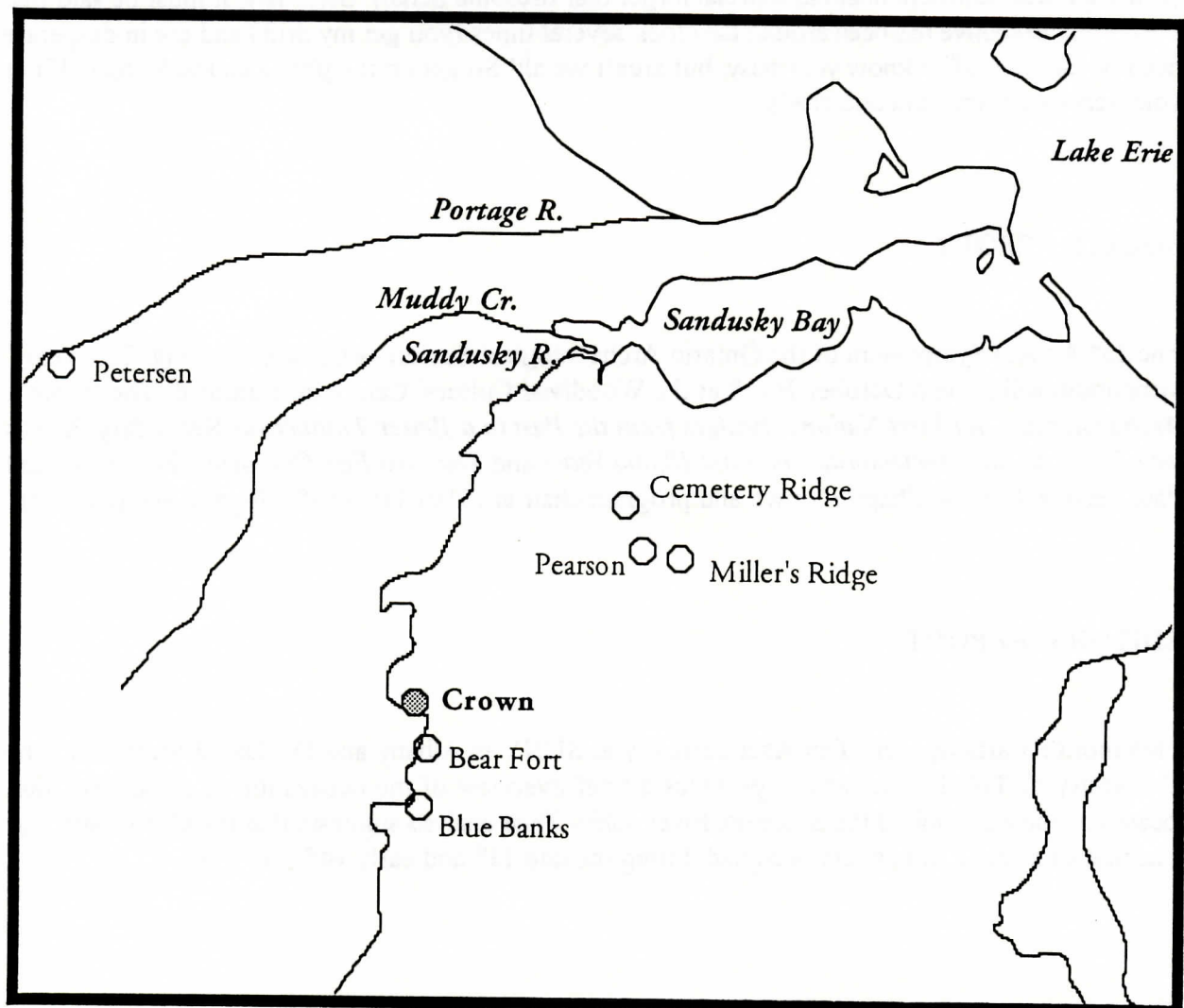


Figure 1: Location of the Crown Site

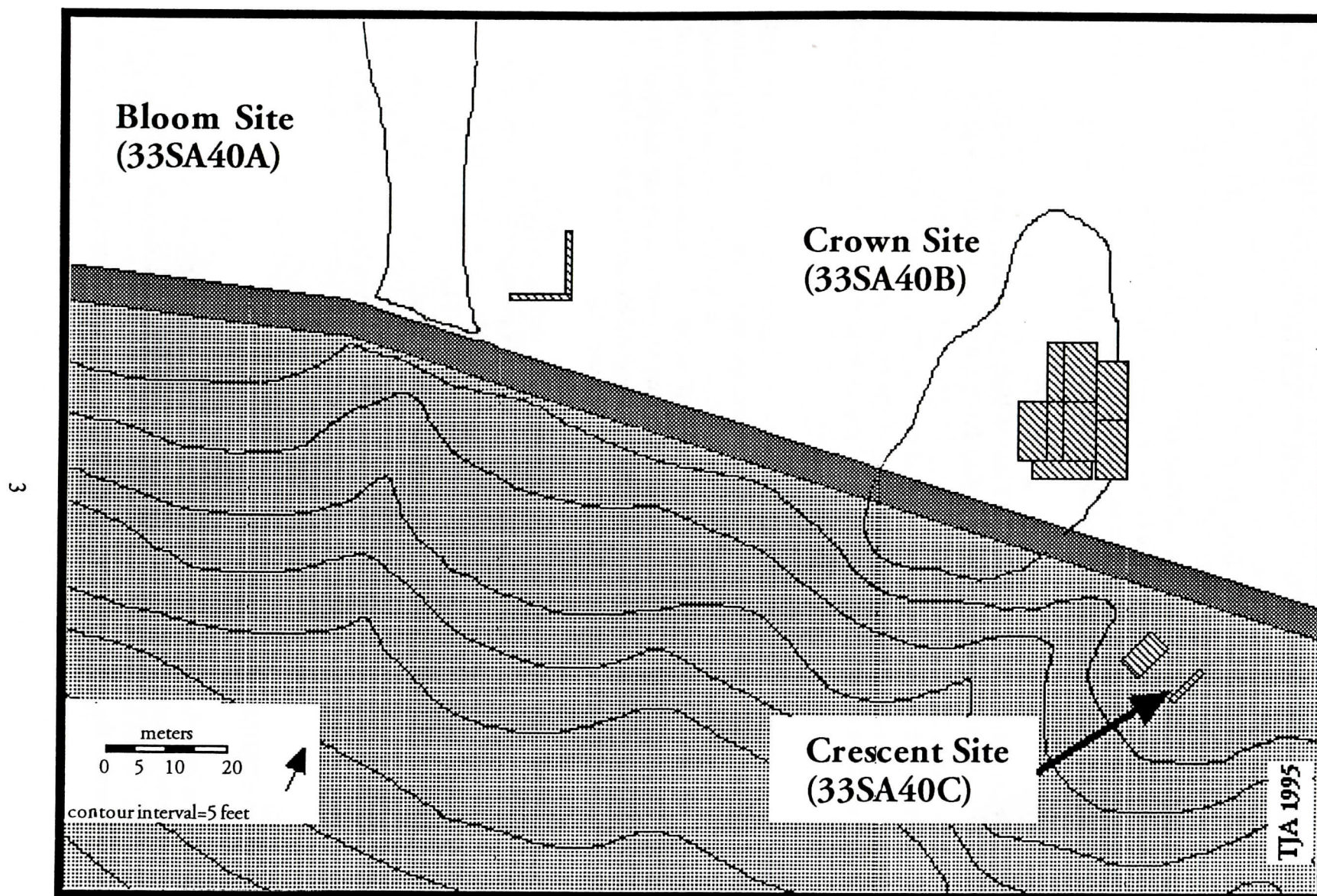


Figure 2: WLEARP excavations of the Crown Site Locality, 1988-1989

Excavations of the Crown site by the Western Lake Erie Archaeological Research Program (WLEARP) at the University of Toledo were conducted between 1987 and 1989. These excavations exposed 352.2 square metres of site area, requiring 944 person-hours of labour investment (Figure 2). The excavations were directed by Dr. David Stothers, director of the WLEARP, and supervised in the field by Timothy Abel and Dean Tallman. Evidence of at least two components was documented as a result of the excavations, including a transitional Eiden to Wolf phase (ca. 1200-1300 A.D.) component and an early historic (1739-1820) occupation. The latter is perhaps related to an adjacent cemetery believed to have been used during the late 18th through early 19th centuries. The cemetery contains wooden coffin burials including both Europeans and Native Americans (Sciulli 1994).

The excavations concentrated on the transitional Eiden to Wolf phase occupation, revealing several large storage pits, hearths, "smudge pits" (cf. Binford 1967) full of charred corn kernels, cobs, and husks, four burials, and post mould configurations suggesting two overlapping structures (cf. Stothers et al. 1994: 164) (Figure 3). Structure 1 is ovoid, and measures 11 metres in length and 8 metres in width. Structure 2 is also ovoid, measuring 15 metres in length and 9 metres in width. Each structure has within it several large storage pits, while Structure 2 appears to have been associated with a single hearth.

Three of the four interments were represented by single extended primary burials, aligned in a single row oriented east northeast by west southwest. The burial area was located directly north of Structure 1. The remaining burial feature was "jammed" into what is believed to have been an existing storage pit along the north wall within Structure 1. We say "jammed" because the individual was obviously contorted into an unnatural position to fit a pit obviously too small to contain the individual. It is believed that the burials are associated with Structure 2, possibly representing a small family plot. None of the interments were associated with any grave furniture.

As excavations moved to the east and north of the structures, the density of pit features dropped off dramatically, suggesting that this locus was composed of a single or perhaps a few contemporaneous structures. Several other clusters of similar cultural debris have been documented less than 500 metres to the west of Crown, on the Bloom site (33SA40A) (Pratt 1980; UTLA 1972-1997). It is possible that the bluff has several small discontinuous occupation areas. Overall, the interpretation gleaned from these excavations is that of a hamlet occupied perhaps repeatedly by one family of incipient horticulturalists, or perhaps by several families dispersed over the entire bluff-top, who shared the labour required to plant, tend, and harvest. No unequivocal evidence of winter habitation was found.

CULTURAL MATERIAL ASSEMBLAGES

The cultural material in the Crown site assemblage was analyzed by Zachary Robinson and Cole Gittenger, two undergraduate anthropology majors under the supervision of the authors. It consists of lithic, ceramic, faunal and floral remains. The lithics were tabulated by lithic type, and further analyzed to determine the source material. Ceramics were tabulated according to sherd type and

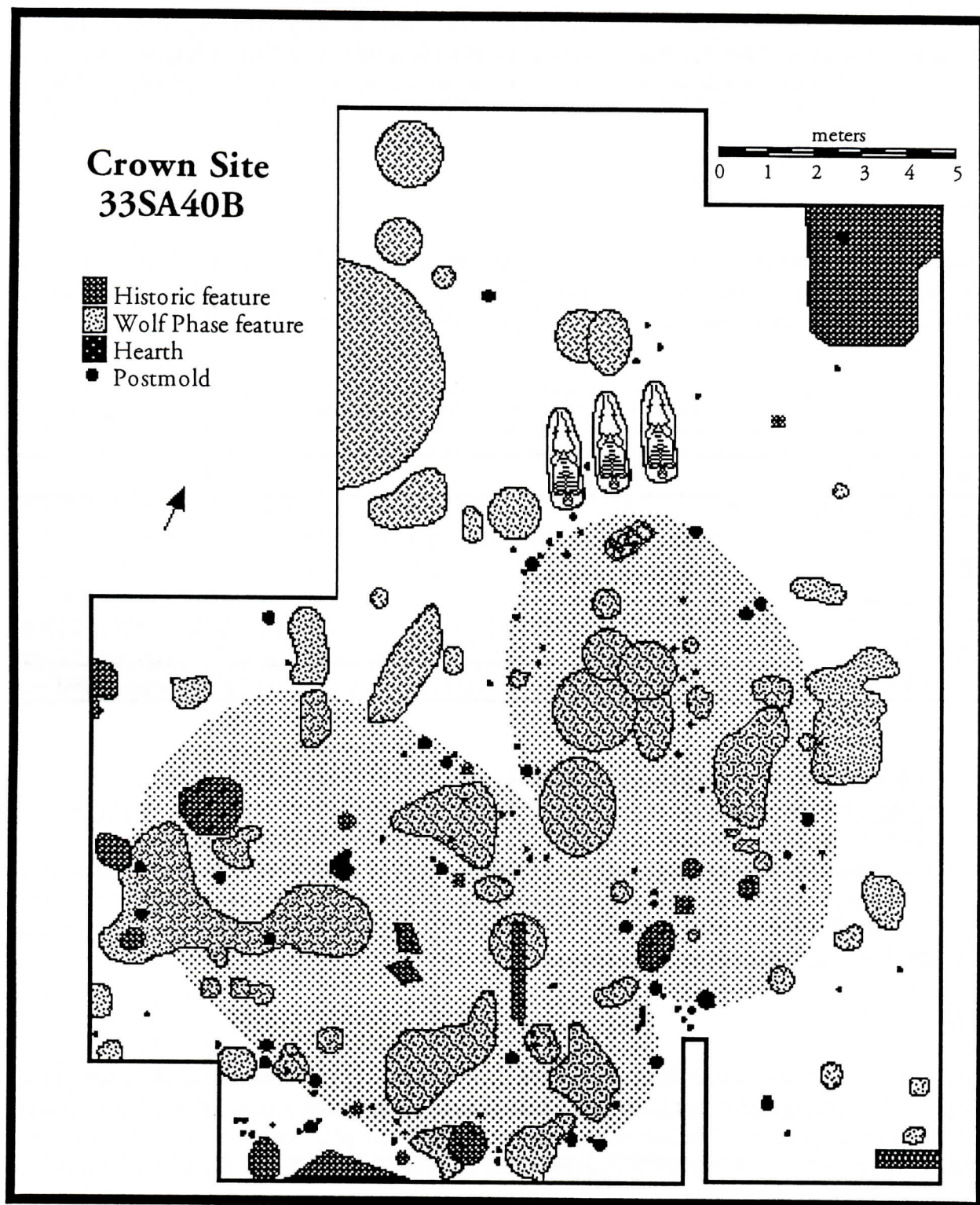


Figure 3: Layout of Features at the Crown Site

surface treatment. Frequencies were calculated for various attributes including surface treatment, motif, and technique. The rims and necks were sorted into typed and untypable categories. Frequencies were tabulated for each ceramic type, as well as for specific attributes within each type. The analysis of floral and faunal remains were largely entrusted to individuals of greater expertise, although preliminary summaries are presented here.

Lithics

Excavations of the Crown site produced 295 lithic artifacts, including five Madison-like projectile points, a straight "pin" drill, a notched "Lamoka"-like projectile point (cf. Ritchie 1971:29-30; Justice 1987: 127-129), a pitted anvil stone, and 287 pieces of chert debitage (Table 1).

Table 1 Crown Site Lithic Assemblage

ARTIFACT	f	%
projectile points	6	2.0
drill	1	0.3
anvil stone	1	0.3
debitage	287	97.3
TOTAL	295	100.0

The debitage sample included several primary decortication flakes and nodular core remnants suggesting a nodular core lithic technology. Evidence of bi-polar core preparation was not noticed in the assemblage. Of the chert debitage, 53% was derived from local Delaware chert sources, 21.6% was derived from exotic Flint Ridge sources, 13.6% was derived from local Columbus chert sources, and 8.7% was derived from local Pipe Creek sources (Table 2). A minor percentage of the cherts could not be identified, while a very small percentage was derived from exotic Upper Mercer chert sources. There was one piece of quartzite in the assemblage.

Ceramics

The ceramic vessel assemblage derived from the Crown site excavations consisted of 48 rim sherds, 50 neck, shoulder and waist sherds, and 1092 body sherds. Of the body sherds, all are grit-tempered, while 464 are analysable. Of the analysable body sherds, 93% are plain and smoothed on the exterior surface, 4% are smoothed over cord-roughened, 2% are simple-stamped, and 1% are roughened with a cord-wrapped paddle (Table 3).

Table 2 Debitage Material Types

MATERIAL TYPE	f	%
Delaware chert	152	53.0
Flint Ridge chalcedony	62	21.6
Columbus chert	39	13.6
Pipe Creek chert	25	8.7
Upper Mercer	1	0.3
quartzite	1	0.3
unidentified chert	7	2.4
TOTAL	287	100.0

All of the body sherd interiors save one are smoothed. The remaining body sherd is a basal fragment which displays vertical channelling on the interior surface. Many of these body sherds displayed a rough, sandy applique slip on the exterior surface. Three of the waist section body sherds were decorated with horizontals executed in punctates or dentate stamps. Four shoulder section sherds displayed horizontals executed in dentate stamp or punctates over plan and smoothed surfaces. The surface treatment below the shoulder motifs of two of these sherds was plain and smoothed, while the third displayed a plain cord-roughened body below the shoulder motif.

Table 3 The Crown Site Body Sherds

BODY SHERDS	f	%
Plain	433	39.7
Smoothed-over-cord	19	1.7
Simple-stamped	7	0.6
Cord wrapped stick	5	0.5
Unanalyzable	628	57.5
TOTAL	1092	100.0

A total of 48 rims and 50 necks were deemed analysable for the purposes of this study. Unanalysable rims and necks included those which had destroyed faces or were too small to recognize the motif (usually less than 0.5" in surface area). The analysable rims and necks represent between 48 and 93

vessels, depending upon the degree to which the necks and rims are associated. The analysis of the decorated sherds by the senior author (Abel 1995) sought to distill the vessel assemblage to the fewest possible number of vessels, however, the fragmentary nature of many of the vessels made this enterprise somewhat difficult. The vessel count of 93 vessels represents the maximum number of vessels possibly represented by the analysable sherds. Of these 93 vessels, 39 vessels are represented by sherds large enough to type (Table 4).

Mixer Dentate (Shane 1967) is represented in the Crown site ceramic assemblage by six rims and one neck representing seven vessels or 18% of the typed vessel inventory. All of the rims display motifs executed in a dentate stamp consisting of two denticulates. Of six vessels represented by rim sections, three or 50% display lips that are embellished with punctates. Two or one-third of the six vessels display lips that are embellished with a push-pull motif, while one vessel, or 16% of the six, displays a lip embellished with dentate stamps.

All of the Mixer Dentate lips analysed are flattened, while of the six vessels, four or two-thirds of the vessels display straight rim profiles, one or 16% displays a straight rim profile with a tapered lip, and one or 16% displays a straight rim profile with a splayed lip. None of the rims sherds displayed castellations, although they occur commonly in other assemblages. The lip thickness of the Crown site Mixer Dentate vessels averaged 6.6 mm, ranging between 5 mm and 8.5 mm.

Table 4 The Crown Site Ceramic Types

CERAMIC TYPE	RIM AND NECK SHERDS		VESSELS	
	f	%	f	%
Mixer Festooned	17	39.5	14	35.9
Parker Festooned	12	27.9	12	30.8
Mixer Dentate	7	16.3	7	17.9
Mixer Tool-Imprinted	6	14.0	5	12.8
Peterson Plain	1	2.3	1	2.6
TOTAL	43	100.0	39	100.0

Mixer Tool-Imprinted (Shane 1967) is represented in the Crown site ceramic assemblage by six rims and one neck representing five vessels or 13% of the typed vessel inventory. Of four vessels represented by rim sections, all but one displays lips that are embellished with punctates. The remaining rim displays a channelled lip which terminates at the peak of a simple rounded castellation. Directly below this castellation on the rim is a pair of punctates.

All of the Mixer Tool-Imprinted lips analysed are flattened, while of the four vessels, three or 75% display slightly excurvate rim profiles, and one or 25% displays a straight rim profile. Two of the rim sherds displayed castellations, both of which are simple angled castellations. The lip thickness of the Crown site Mixer Tool-Imprinted vessels averaged 5.5 mm, ranging between 4 mm and 6 mm.

Mixer Festooned (Abel 1995) is represented in the Crown site ceramic assemblage by 11 rims and six necks representing 14 vessels or 36% of the typed vessel inventory. Of 10 vessels represented by rim sections, five or 50% display lips which are embellished with dentate stamps. Three or 30% display lips embellished with punctates, and one or 10% displays lips embellished with a denticular push-pull motif.

All of the Mixer Festooned lips analysed are flattened, while of the 10 vessels, five or 50% of the vessels display straight rim profiles, three or 30% display slightly excurvate rim profiles, and two or 20% display straight rim profiles with tapered lips. Three of the rim sherds displayed castellations, all of which are simple rounded castellations. Four of the vessels display appliqué strips either parallel to horizontals, or draped on the rim under a festooned motif. Three of the vessels displayed human face effigy adornos which were typically at festoon bases or peaks. The lip thickness of the Crown site Mixer Festooned vessels averaged 6.7 mm, ranging between 5 mm and 8.5 mm (Figure 4).

Parker Festooned (Lee 1958; Abel 1995) is represented in the Crown site ceramic assemblage by eight rims and four necks representing 12 vessels or 31% of the typed vessel inventory. Of these vessels, 10 or 26% of the typed vessel inventory can be sub-typed as variety stamped, while the remaining two, or 5% of the typed vessel assemblage, can be sub-typed as variety push-pull. Of seven vessels represented by rim sections, three or 43% display lips that are embellished with punctates. One vessel (14%) displayed a plain smoothed lip, while another vessel (14%) displayed a lip embellished with dentate stamps. One vessel (14%) displayed a lip embellished with push-pull, while another displayed a lip embellished with trailing.

Six of nine Parker Festooned lips analysed are flattened, while three are prominently rounded. Of nine vessels, eight display straight rim profiles, while one displays a slightly excurvate rim profile. Two of the rim sherds displayed simple rounded castellations. Three of the vessels display festooned appliqué strips on the rim under a stamped festooned motif. One of the vessels displayed a human face effigy adorno at the festoon base. The lip thickness of the Crown site Parker Festooned vessels averaged 6 mm, ranging between 4 mm and 7 mm.

Petersen Plain (Abel 1995) is represented in the Crown site ceramic assemblage by one rim sherd making up 3% of the typed vessel assemblage. The rim has a plain and smoothed lip which is flattened. The rim profile is straight, while the lip thickness is 6 mm.

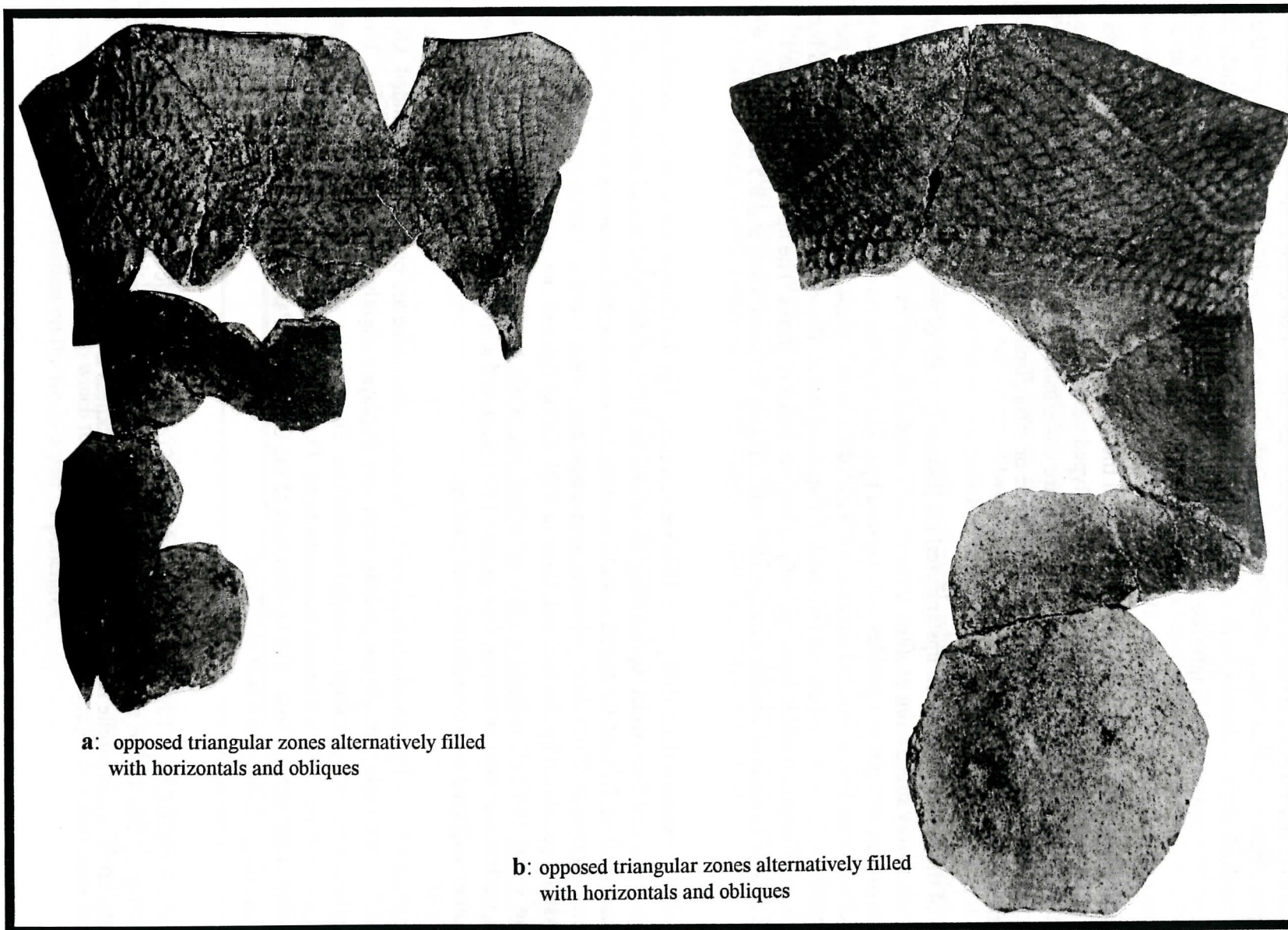


Figure 4: Reconstructed Mixer Festooned Vessel Segments from the Crown Site

Fauna

Only a portion of the faunal assemblage has been analyzed to date. The terrestrial vertebrates of this portion were analyzed by Jonathan Bowen in support of his Ph.D. dissertation at the Ohio State University (Bowen 1992), while the piscine remains were analysed by Dr. Ted Cavender of the Ohio State University biology department (Cavender 1989). Of the terrestrial vertebrates analysed, 81% were classified as unidentified mammals, 7% as unidentified bird, and 1% as unidentified turtles. The remaining 11% were identified to species (Table 5).

Table 5 Faunal Remains*

CLASS	SPECIES	NISP	%
Mammal	Deer (<i>Odocoileus virginianus</i>)	51	7.6
	raccoon (<i>Procyon lotor</i>)	5	0.7
	elk (<i>Cervus elaphus</i>)	3	0.4
	porcupine (<i>Erethizon dorsatum</i>)	2	0.3
	muskrat (<i>Ondatra zibethica</i>)	1	0.1
	beaver (<i>Castor canadensis</i>)	1	0.1
	bear (<i>Ursus americanus</i>)	1	0.1
	squirrel (<i>Sciurus carolinensis</i>)	1	0.1
	unidentified	540	80.7
Subtotal - Mammal		605	90.4
Duck	duck (<i>Anas</i> spp.)	4	0.6
	turkey (<i>Meleagris gallopavo</i>)	3	0.4
	unidentified	48	7.2
Subtotal - Birds		55	8.2
Reptiles	snapping turtle (<i>Chelydra serpentina</i>)	1	0.1
	unidentified	8	1.2
Subtotal - Reptile		9	1.3
TOTAL		669	100.0

* excludes fish remains

The faunal remains identified to species included deer (*Odocoileus virginianus*) (70%), elk (*Cervus elaphus*) (4%), bear (*Ursus americanus*) (1%), raccoon (*Procyon lotor*) (7%), beaver (*Castor canadensis*) (1%), porcupine (*Erethizon dorsatum*) (3%), muskrat (*Ondatra zibethica*) (1%), squirrel (*Sciurus carolinensis*) (1%), ducks (*Anas* spp.) (5%), wild turkey (*Meleagris gallopavo*) (4%), and snapping turtle (*Chelydra serpentina*). The minimum number of individuals per species (MNI) was not calculated.

The most numerous remains within the Crown site faunal assemblage were fish. However, this may be a misleading indicator of the number of fish consumed since a single fish may contribute over 600 skeletal elements to the archaeological record. Only a preliminary breakdown of the piscine assemblage has been completed at this time, which includes specimens of silver and redhorse suckers, channel catfish, white bass, walleye, and pike (Cavender 1989). These species are early spring through early summer spawners that would be typically seen at a site occupied during the maize planting season (Trautman 1981).

Flora

A preliminary breakdown of the Crown site floral assemblage into charcoal, cultigens, nutshells, and weeds has been completed. The weed seeds have not been analyzed and remain unidentified. The cultigens identified in the floral assemblage are restricted to maize at this stage of the analysis. Maize made up the large portion of the carbonized floral remains, and included 745.2 grams of cob fragments, 59.35 grams of maize husk, 58.46 grams of maize cupules, and 8.2 grams of maize kernels. The majority of the maize was derived from three "smudge pits" excavated at the site, whose contents suggest the burning of cobs and husks following the removal of the kernels. The cob fragments included 22 partially complete cobs of which 19 are of the 8-row variety of Northern Flint, two of the 10-row variety, and one is too fragmentary to derive an accurate row count. In addition, to the cultigens, 131.9 grams of charcoal and 67.25 grams of nutshell has been separated. The charcoal weight does not include that contained in radiocarbon samples.

RADIOCARBON DATES

Three radiocarbon assays have been obtained from features associated with the above described ceramic assemblage. These samples were dried in a clean environment and hand-picked under magnification for the removal of rootlets and carbonized non-wood material. The assays obtained are 610 ± 80 RYCBP (I-16,630) (Stothers and Abel 1989; Stothers et al. 1994), 680 ± 50 RCYBP (Beta 22865) (Stothers et al 1994), and 800 ± 70 RCYBP (GX-16875) (Stothers et al. 1994).

Each assay is reported here as reported by the radiocarbon laboratory. None of the assays reflect a correction of carbon isotope ratios. I-16,630 calibrates, using CALIB 3.03c (Stuiver and Reimer 1995), to A.D. 1280 (1320, 1340, 1400) 1440, while the other two samples calibrated to A.D. 1270

(1300) 1400 (Beta 22865) and A.D. 1050 (1250) 1300 (GX-16875). These calibrated ages are rounded to the nearest decade, as suggested for assays with standard deviations of 50 years or greater. All of the ages reflect a two sigma deviation. These ages suggest a late 13th to early 14th century occupation for the Crown site.

CONCLUSIONS

The available evidence from the Crown site excavations seems to suggest that the occupation represents a warm-weather hamlet, or perhaps a series of dispersed hamlets scattered across a bluff-top setting overlooking the east bank of the Sandusky River. It appears that the Crown site was occupied in the late 13th to early 14th centuries, and perhaps throughout this period. Based on the overlapping of the two Crown site structures, returning to the site repeatedly over several years seems to have been the general pattern followed. The Crown site hamlet represents an initial stage in the intensification of a maize-centred economy, and the consolidation of kinship based populations into maintained social groups (polities). These groups further bond to form the first fortified village communities by the mid 14th century (Stothers and Abel in press).

REFERENCES CITED

- Abel, Timothy J.
1995 The Petersen Site and New Perspectives on the Late Prehistory of Northwestern Ohio. M.L.S. Thesis, Master of Liberal Studies Program, The University of Toledo, Toledo Ohio.
- Binford, Lewis R.
1967 Smudge Pits and Hide Smoking: The Use of Analogy in Archaeological Reasoning. *American Antiquity* 32 (1): 1-12.
- Bowen, Jonathan E.
1992 The Late Prehistory of Northwestern Ohio. Ph.D. dissertation, Department of Anthropology, The Ohio State University.
- Cavender, Ted M.
1989 Archaeological Sites: A Window to the Past for the Lake Erie Basin Fish Fauna (abstract). *Ohio Journal of Science* 89(2);2.
- Government Land Survey (GLS)
1819-1830 Government Land Office, Survey field Notes, Unpublished report on file, Ohio State Auditors Office, Columbus.

- Justice, Noel D.
1987 *Stone Age Spear and Arrow Points of the Midcontinental and Eastern United States: A Modern Survey and Reference*. Indiana University Press, Bloomington, Indiana.
- Lee, Thomas E.
1958 The Parker Earthwork, Coruna, Ontario. *Pennsylvania Archaeologist* 28(1): 3-30.
- Ohio Department of Natural Resources (ODNR)
1981 Soil Survey of Sandusky County, Ohio. Ohio Department of Natural Resources, Columbus.
- Pratt, G. Michael
1980 Fort Ancient Influence in North-Central Ohio: The Bloom Site. *Toledo Area Aboriginal Research Society News and Notes* 80(3):3-5.
- Ritchie, William A.
1971 A Typology and Nomenclature of New York Projectile Points. *New York State Museum and Science Service Bulletin* 384.
- Sciulli, Paul
1994 An Analysis of the Human Remains from the Crescent site (33SA40C). Unpublished report on file, The University of Toledo.
- Shane, Orrin C.
1967 The Mixter Site: A Multicomponent Hunting Station in Erie County, Ohio. In *Studies in Ohio Archaeology*, edited by Olaf H. Prufer and Douglas H. McKenzie, p. 121-186. The Kent State University Press, Kent, Ohio.
- Stothers, David M. timothy J. Abel
1989 The Position of the 'Person Complex' in the Late Prehistory of Northern Ohio. *Archaeology of Eastern North America* 17: 109-142.
- The Intensification of Agriculture and Formation of Early Village Communities: A Perspective from the Western Lake Erie Region. *Norther Anthropology*, in press.
- Stothers, David M., James R. Graves, Susan K. Bechtel and Timothy J. Abel
1994 Current Perspectives on the Late Prehistory of the Western Lake Eries region: An Alternative to Purphy and Ferris. *Archaeology of Eastern North America* 22:135-196.

Trautman, Milton B.

1981 *The Fishes of Ohio*. The Ohio State University, Columbus.

UTLA

1972-1997 Unpublished Reports, Manuscripts, and Notes on various small site collections from northwestern Ohio and southeastern Michigan. Unpublished report on file, the Western Lake Erie Archaeological Research Program, the University of Toledo.